

Unpacking Social Interaction that Make us Adore – On the Aesthetics of Mobile Phones as Fashion Items

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ABSTRACT

We report on a study of fashionable people's expressions of opinions on mobile phones in online fashion media, such as blogs and magazines. First, the study contributes to our understanding of the role of pragmatic philosophy, which is now dominating HCI both as a guide for design and as a guide when looking at social practices, in outlining the role of aesthetics in experience design. Fashion practices diverge from this theory, since here aesthetic appearances can be visual, ambiguous and incomplete although it still provides a lot of meanings for people. We argue that our findings should influence the discussion in HCI to consider a less theoretically oriented aesthetic approach, where instead empirical studies get at the forefront. Second, the study provides valuable insight on how we should design mobile experiences to attract more attention from people interested in fashion. Mobile phones, and their services, can for example be designed to relate to the visual appearance of the dressed outfit, or ensemble of a person.

Keywords

Aesthetic experiences, mobile phone, fashion media, qualitative content analysis, blogs, pragmatism, design

ACM Classification Keywords

H.5.2 User Interfaces

INTRODUCTION

In this study, we present a qualitative content analysis of the representation of mobile technology in fashion online writings. The purpose is to see how mobile phones fit with fashion systems as well as to influence the research area of aesthetic human-computer interaction in general and that of mobile HCI in specific.

Recently, there has been growing research on the relation between aesthetics and technology in the field of Human Computer Interaction (HCI) [1]. It is linked with general concerns to understand and influence the ways in which digital technology has a role to play in users' "experience,

emotion, desire, fulfillment" [35] and thus to extend the classic concern on increasing the usability in computing. Aesthetics have an important role to play in fulfilling such demands [13]. Furthermore, recent studies [29] suggest that the boundary between aesthetics and usability is much less blurred than previously expected, since attractiveness plays a key role even in the usability ratings. Visual attractiveness is not then only about beauty on the surface, but also influences efficient interaction and usability.

In this paper, we will discuss the pragmatist approach on aesthetics since it has recently attracted a lot of interest within HCI [27]. It draws on the pragmatist view, as formulated by the philosopher John Dewey [6], which focuses on aesthetics as an experience of a person in a lived world, stating that these experiences occur in society. Basically, this philosophy has been useful for providing guidelines in the design of digital artifacts, and specifically as a way to argue for increased physical, or bodily, interaction with computers [26, 28]. It has also served as a guide to identify and discuss existing aesthetical experiences [21] as occurring in a social environment, and being bounded, fulfilling and drawing on multiple senses.

We argue that the focus on designing for experiences in general is at least as relevant for the mobile research area, as it is for HCI in general. And the role of aesthetics, in particular, might even be more salient for mobile experiences in the way these digital devices are always close at hand and close to our body.

Furthermore, the particular focus on fashion practices and their contribution to mobile design are of special importance in illuminating the role of aesthetics in the interaction with digital artifacts. Fashionable social practices reveal our tastes, and mold our idea of what is beautiful and aesthetical [18, 34]. Several social scientists see fashion as a broad social phenomenon especially in consumer society [8, 34]. Some aspects of the relation between mobile technology and fashion have already been studied by Fortunati, Katz and Sugiyama. They argue that mobile phones are fashion objects that provide their users with means for self-expression [9, 17]. This tells us that from a consumer perspective mobile phones are adorned in similar ways as clothes. But we still do not understand what objects become desired and how that happens. Here, fashion theory points

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to the role of social institutions that influence aesthetic design [18]. Such fashion institutions also are at play, when it comes to mobile design is obvious. It is available e.g. in the ways fashion brands cooperate with phone companies and produce new fashionable mobile phones [15], or made explicit in panel discussions in the mobile industry where it is suggested that fashion is a “stronger motivator than functionality” to enhance “mobile user experiences” [24].

We will focus on fashion media on the net, which works as gatekeepers between fashion production and fashion consumption, as a way to unpack the link between mobile design and aesthetic institutions within the fashion system. Fashion gatekeepers, who traditionally have consisted of journalists and paper media, play an important role in making aesthetic judgments. Recently fashion blogs and websites have also become influential on fashionable peoples tastes. We argue that focusing on how mobile technology is presented on such sites is an interesting first step to increase our understanding of aesthetics in mobile interaction. From a methodological point of view, blogs and online magazines provide practically available empirical material in an area, such as the study of aesthetic experiences, where the gathering of data is often a challenge. We argue that juxtaposing the data set, with available fashion theory, in a qualitative content analysis, is applicable as a way to set this new scene both for design and for further studies.

Our study indicates that mobile phones do fit into the fashion system. The fashion gatekeepers refer to mobile phones in their posts, although on a limited scale. The interest is very much in visual features of mobile phones, where they use a way of talking about the appearance of objects that very much resembles the way they talk about the fashionable aspects of clothes. There are also some comments regarding the usability of the phones. We argue that this finding could influence the area of aesthetic interaction in general. The aesthetic interaction going on among these gatekeepers reveals a mismatch between Dewey’s theory and what is going on here. Our data indicates that the bloggers and editors were most interested in the aesthetics as visual impressions, rather than in an aesthetic of the human computer interaction. We argue that this indicates that we need to reconsider the use of pragmatist theory, as well as what type of interaction that is of importance here. Furthermore, the study reveals an ambiguity in the way the concept of an accessory is discussed. The traditional way to think of accessories as something that adds to an outfit is in this domain complemented by the mobile industry’s way of thinking on accessories as something attached to a phone. We argue that sorting out this ambiguity, might increase the interest in mobile phones among the fashion system.

RELATED WORK

Aesthetics in Human Computer Interaction

Recently, there has been a growing recognition that aesthetics is an important aspect of the user experience in the interaction with digital devices. The discussion on the role

of aesthetics in the experience of human computer interaction has become dominated by a pragmatist view. It is argued that aesthetics emerge in the interaction with objects in an environment, and consists of overwhelming and complete experiences [20, 26, 36]. Petersen, Iveresen et al. [26] have contributed to this perspective and further extended the recognition of the value of beauty in our engagement with technology. They suggest that aesthetic interaction should not only concern immediate visual appearance, but also include the interaction per se, as well as its broader societal structures. Following the pragmatist tradition and philosopher John Dewey [6] in particular, they claim that aesthetics is “not something a priori in the world, but a potential that is released in dialogue as we experience the world”. Wright et al. [35] provide an elaborated account on pragmatist aestheticism drawing on the theory of John Dewey [6] as well. They argue that pragmatism sees “aesthetics as a particular kind of experience that emerges in the interplay between user, context, culture, and history” and it is “creative, enlivening, and expressive, and involves the senses and values in inclusive and fulfilling activity” [35].

Since John Dewey and his pragmatism have gained considerable interest in HCI we will in this paper focus on this philosophy and its applicability to understand contemporary aesthetic experiences. Dewey argued that traditional aesthetic theory misses the experience, since it starts off with the pre-selected objects of adornments, for example in an art gallery, and conducts the analysis based on their characteristics. He instead, wanted to turn the attention to the experiences that was generated in us in ordinary moments of embellishment, such as when we look into the fire or on someone doing gardening [6]. In order to understand how aesthetical experiences emerge Dewey argues that we need to account for the “environment” in which it occurs and the ways in which we interact with it [6, p12]. Furthermore, he stated that the experiences must be stable, unified and complete. Form and aesthetic emerges when change ceases and conflicting elements balances each other out. Order emerges out of complexity to become something harmonious [6, p14]. The experience should balance all our senses, such as sight smell or listening, and include both or mind and or body to avoid compartmentalization and fragmentation. Dewey’s explicit reference to everyday aesthetical experiences, as well as when he points to the “environment” as a fundamental influencing factor, suggest that his further arguments of what makes up aesthetics is in some sense grounded in an understanding of ordinary life. However, the theory he puts forward are far from it and he instead argues that detailed accounts of experiential practices are unnecessary: “[A] theory of the place of the esthetic in experience does not have to lose itself in minute details when it starts with experience in its elemental form. Broad outline suffice.” [6, p12]

Fashion, Ambiguity and Social Institutions

In fashion theory we find another approach to understand aesthetic interaction both in terms of methods and findings. Fashion is an important driver of taste and it molds our

concept of what is considered beautiful and aesthetical [18, 34]. Wilson argues in her book "Adorned in Dreams" [34], that the changing expression, of what is seen as fashionable, have to do with the evolution of aesthetic style that reflects ambiguities and dissonances in society. Fashion is for example a form visual art with the "visible self as its medium" [34, p9]. Her main argument is that the aesthetic styles are in themselves ambiguous and rooted partly in the continuant change of expressions, where one style draws on the previous, and in a sense provide a pattern where one step reflects the previous step. But fashion aesthetics is also molecular and disconnected. "Fashion, with its constant change and pursuit of glamour enacts symbolically the most hallucinatory aspects of our culture, the confusions between the real and the not-real, the aesthetic obsessions, the vein of morbidity without tragedy, of irony without merriment, and the nihilistic critical stance towards authority, empty rebellion almost without political content" [34, p63]. The ambiguity is to be found on other levels. It sits uncomfortable between the private territory of our biological body and the way we are as social and public being. Fashion is also linked to change and a complex and modern society. In this sense, the link between the self and the world, as expressed with clothes, is always ambiguous. Fashion is a means to express individual desires for independencies or wishes to belong to a group, but it also becomes a social pressure for conformity, often formulated in feministic critiques of the beautification of the self.

Recently, the interest in the theory of fashion has been growing a lot providing many different empirical accounts of aesthetic institutions [18]. Echoing Dewey's view on aesthetics as dependent on the environment, fashion theorist Kawamura [18] argues that the taste for fashion is influenced by culture, context and history. In particular, she suggests that the way this is done is through a "fashion system" which means institutional and cultural arrangements that cause particular cultural objects to be adorned in a specific way. It is this social system that in intricate ways creates the constant fluctuation of taste, and links industrial production to the variations in consumer values. Specifically, fashion system includes mechanisms of production, diffusion and consumption which are interacted with each other. Gatekeepers, for example in media, play an important role in making aesthetic judgment as part of diffusion mechanism. These groups and individuals are sources of meaning for the masses, and they create and deliver symbolic codes that are largely constructed according to prevailing cultural principles. Obviously, this depends on social institutions, and their part in the molding of tastes, shares the basic recognition of the role of societal interaction with the pragmatist approach.

Today, the websites of the influential fashion magazines are becoming more popular in the world. They are obviously fashion gatekeepers, influencing the aesthetic values of public. Moreover, fashion blogs have recently become integrated into the diffusion part of the system, and blog-

gers are acquiring the role of gatekeepers. Blogs are here defined as "periodically updated journals, providing online commentary with minimal or no external editing" [16]. According to a survey made by Technorati, there are "about 75,000 new blogs and 1.2 million new posts everyday" in 2006 [41]. Fashion blogs have all these major features, but the significant distinction lies in their contents, which focus in particular on fashion issues such as runway trends, fashion items, celebrities, and street style outfits worn by common people [39]. They were initially dismissed as trifling and small, are now "attracting the attention of the fashion establishment [7]. As blogs claim bigger followings, and advertisers shift more spending to them, designers see these independent web publishers as a new marketing opportunity". The fact that the blogs have been institutionalized is visible in two ways. First, mainstream fashion media, which has a central role in defining fashion, and thus in creating and diffusing these cultural artifacts, has gradually come to accept fashion blogging. Second, an increasing number of fashion bloggers are invited to designers' fashion shows or other fashion events [7].

In all, both online magazines and online blogging are part of large arenas of social activity, where fashion interaction has extended into new forms of communication and new topics. Online fashion writings, therefore provides means to study the link between the fashion world and that of mobile phone use.

Fashion Language

Finally, it is important to recognize the role of language in these forms of aesthetic experiences. Kawamura argues that it is "the use of language that transforms clothing into fashion, in particular through its articulation of concepts of 'taste'" [18]. People in the fashion world use language to talk about different topics of what brings them together and to negotiate their positions therein [3]. This makes it possible to unpack fashion by focusing on how it is represented, such as in the studies by Roland Barthes, who explored the semiotic structure of the fashion language through empirical study of two magazines i.e. Elle and Jardin des Modes [2]. He argued that the clothing of fashion magazines in a written form consists of two interrelated classes of utterance: one includes all vestimentary features signifying clothing, like fabric, forms, color and so on; and the other circumstantial features, such as evening, weekend, shopping, lifestyle etc. [2]. These modes of representation, i.e. forms or appearance and circumstanced feature, are still important in fashion studies.

METHODOLOGY AND SETTING

It is a challenge per se to find empirical material, which increase the knowledge of the relation between the fashion system and mobile phone use. Here, we have focused on publicly and available written material online. This material is also produced by people, who play an important role in the system i.e. they act as gatekeepers between producers and consumers. Thus, it is both empirically available and relevant for the unit of analysis.

In this paper, we have applied a qualitative content analysis. Qualitative content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use [4, 19, 22, 25]. It aims for the “qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” [25]. The concept of “qualitative”, rather than quantitative, makes visible that the analysis moves beyond systematic data coding to identify trends, and also allows us to interpret the material given theoretical preconceptions [4, 18, 34]. In our case, our interpretations are informed by fashion theory.

Collection of Corpus

The collection of data was carried out during three periods. The first was done during March and April in 2009. By searching key word “fashion blogs” in Google, we got some sites and randomly selected those blogs that fit with the standards of fashion blog as previously discussed. Then we searched for the terms “mobile phone” and “phone” on the blog websites, or by manually looking through all the entries one by one. We finally collected 47 blog entries that contained such index terms, from twenty blogs from 2005 to 2009. We mark this source as “Google Blogs” (see Figure. 1). The second survey was done between the 18th April and 30th April in 2010. We used a blog search engine, called Technorati, to find relevant blogs and we searched the keyword “fashion blogs” during the period, which resulted in a total of 135 collected fashion blogs. Then by entering “mobile phone” and “phone” in the blogs’ search box, we collected 62 blog entries from 20 blogs from 2006 to 2010. We mark this as “Technorati Blogs”. The third survey was done during the period of 3rd June to 10th June in 2010 and focused on online fashion magazines such as Vogue, GQ, Elle, Marie Claire, Glamour, Harpers’ Bazaar. These magazines were selected since they are defined as fashion media within research [10] and they have impacted on fashion industry globally for a long time [10,14]. Again, we searched for the terms “mobile phone” and “phone” in the English homepages and collected altogether 36 related posts. In sum, our surveys collected 145 text entries concerning mobile phones in online fashion media.

Development of Category Scheme

After collecting all the related materials, a set of aggregated content categories that brought out salient characteristics in the materials was developed. The aggregation was conducted following a qualitative approach [25], whereby a classification scheme was developed by both attending to the individual entries one by one, as well as to theoretical concepts within the fashion theory.

It resulted in a category scheme that covers the entire corpus (see Figure 1), of which the most interesting are presented in this paper. Importantly, they might not even be the quantitatively most salient aspects. There are also entries that have overlapping topics. The total number here is therefore not equal to the number of all the entries.

FINDINGS AND ANALYSIS

This section is devoted to the analysis of the survey, and a discussion on the categories in figure 1. In the following we will discuss them, with reference to examples in the corpus.

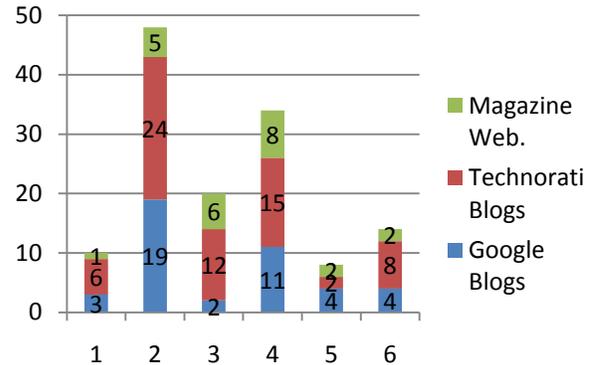


Figure 1 Categories in the corpus

Figure 1 presents the quantitative occurrence of the qualitative generated categories that emerged out of the analysis of the data set. The six categories are: gatekeeping (1), visual features (2), circumstanced appearance (3), accessories (4), temporal change (5) and interface interaction (6). In the following, we will discuss these categories further.

Fashion Media as Gatekeeping (1)

Some entries made explicit how the bloggers have become part of the gate-keeping, as we have discussed previously, between consumers and producers [18]:

The Nokia PR machine has been sending out the new Nokia 7900 Crystal Prism to quite a few fashion bloggers lately, and we were one of the lucky few to receive one.

Excerpt 1: Text entry from the blog “I am Fashion”

“I am Fashion” is a fashion blog focusing on trends in youth street fashion, which was launched by two university students who love fashion. In this text entry, the interaction between the blogger and the mobile industry was quite personal, with the industry turning to a fashion blogger directly. The blogger felt “lucky” to get one for reviewing which shows that he or she was flattered by being selected.

The entry reveals a direct approach from the mobile industry to the fashion world, which also constitutes the bloggers as intermediaries, or gatekeepers, in the system. The blogger not only commented on the user experience, but also used the request per se as a way to establish herself as gatekeeper. The request for a review and invitation to launch events is used to further establish fashion writers (bloggers and fashion editors) as critical parts of the system.

Visual Features (2)

Comments on the visual features of the phones are the most recurrent topic in the data (Figure.1). By visual features, we mean the characteristics of appearance of mobile phones, usually including entries discussing details of the form,

shape, color or material. It also includes those texts that describe the whole look as in the example below:

On first encounter, the LG New Chocolate Phone spots a sexy black and red finishing, with its scratch resistant tempered glass touch screen on the front and glossy black plastic casing at the back. The top and bottom sides both spot a red color which is signature of the Chocolate series. Design fanatics will rejoice at the sleek outlook. I was amazed at the curves and almost seamless design with no obvious edges giving away where the battery and SIM card compartments are.

Excerpt 2: Text entry from the blog “My MANY Bags”

“My MANY Bags” is a male fashion blog, where the blogger shares his personal fashion sense and shopping tips with people. The “first encounter”, with the phone, is very much focused on its visual appeal. He comments on its colours, material as well as its form. The shape of the phone is “sleek” with “curves”. Sleekness is a crucial feature of aesthetic design for stylish phones. This aesthetic feature may be connected to the types of appearances that are appreciated within fashion, since having a slim body is often appreciated [31]. The blogger was “amazed at the curves and almost seamless design”. The description of “sleek”, curves and design as well as the emotional attributes of rejoice and amaze indicates that mobile phones can be adorned along with clothes and other accessories.

There are other examples which displays the ways in which the language to describe visual appearances of clothes, such as such elegant, chic, fashionable, sophistication and minimalism [40], overlaps with the ways in which mobile phones are discussed. These concepts are not directly depicting visual details, but are more used to describe abstract qualities which relate visual features to desires. The descriptions are important in the sense of aestheticizing mobile phone as a fashion object. In this way, mobile phones are approached aesthetically almost in the same way as clothing. Again it is apparent that mobile phones occurred as part of an aesthetical social practice, with an interest in the visual appearance of mobile devices. One blogger distinguished aesthetic appearance and functionality:

Some fashionistas and other fashion-forward individuals choose a cell phone without really making a big deal out of ring tones, instant messages or megapixels. Instead they are concerned with the phone’s design and what it looks like.

Excerpt 3: Text entry from the blog “Fashionolic”

It states that fashion-forward persons are more interested in stylish looks than functionality. They may not use all the functions in a phone, but they concern much about the visual design.

Circumstanced Appearance (3)

In fashion theory, a circumstanced appearance connotes a social situation [2] in which the mobile phone is used, e.g. launch parties, fashion shows. An example is when discuss-

ing celebrities in certain circumstances or “environments” [6].

Project Runway Canada’s youngest competitor, Carlie Wong, showed her Spring/Summer 2009 collection at L’Oreal Fashion Week’s Day 3. A sea of white, black and grey silk cocktail dresses and tailored jumpsuits filled the 15-minute set, along with sleek LG mobile phones that were reworked into wristlets and necklaces.

Excerpt 4: Text entry from the blog “Blogto”

This entry is from the blog web “Blogto” and under the theme of “Fashion and Style”. Here it reports on the appearance of new mobile phones at a fashion show. The clothing and the mobile phone is matched to the whole look of the spectacle. The LG phones are reworked into wristlets and necklaces, which are presented to the audiences just like accessories to the outfits. The LG mobile phone situated in the particular circumstance, e.g. fashion show, is immediately endowed with connotation of fashion.

Importantly, what is discussed here is not the functionality of the phone given a social context. The blogger shows no interest in what the celebrity is doing with the phone, except the ways in which it is made visually present in the circumstance or environment.

Another recurrent theme in the blogs is the way in which the aesthetics are discussed adjacent to a celebrity for example at launch parties, enabling the interaction between the star and the phone to be publically available.



“Beyonce promotes her very own deep red compact number...”

Excerpt 5: Picture and text entry from “the Fashion Bomb”

The “Fashion Bomb” is a fashion blog created by a female journalist, aims at providing daily news of “chic urban fashion”. Excerpt 5 displays an image of the famous musician Beyonce who promotes “her very own” mobile phone. The white wall in the background, with the word “Bphone” appearing repetitively, indicates that she is at present in a public event. The posture of holding the red phone is public as she is purposefully showing the interface of the phone to an audience.

The utilization of celebrities is an efficient strategy in fashion marketing [33]. Stars give brands a well-defined personality for a minimum of effort, and bring them a rich fantasy world to which consumers aspire. In addition, consumers form an attachment to celebrities, seeing them as friendly faces and reliable arbiters of taste. Some entries not only show that the interest in celebrities is applied to mobile phones in fashion media, but also connect celebrities to a wider social situation, such as fashion shows. All

of these contribute to an integrated fashion story which consists of fashion characters, item, event, and background.

In all, what we see here is a discussion about aesthetics in circumstances or environments. Here, the bloggers are not only concerned with the visual appearance of mobile phones during their own close inspections, but also take an interest in aesthetics in a social context, i.e. where it is seen and who is using it.

The Concept of Accessory (4)

The entries in our data reveal an interest in accessories of various kinds. In general, an “accessory” means a thing of secondary or subordinate importance that can add to the beauty, convenience, or effectiveness of something else [38]. We argue that the way the concept of “accessory” occurs in the entries, shows an interesting ambiguity between how it is conceived of in fashion and how it is conceived of in mobile industry.

Device-centric accessories

In several entries, accessories imply an add-on to the mobile phones, as in the following example:

Most people using mobile phone nowadays, it has become a lifestyle. It is never enough to buy a mobile phone and accessories. Accessories can make your mobile phones more powerful as well style point. Some such accessory is cover, skin case, charger, stereo headsets, Bluetooth speakers, memory cards, USB data devices, screen protector and many more.

Excerpt 6: Text entry from the blog “Smart-Club”

“Smart-Club” is a fashion blog written by a young female, focusing on beauty and style in life. An accessory here refers to something secondary to mobile phone which can contribute to the whole style, which we will refer to as “device-centric accessories”. They include covers, cases, chargers and also small gadgets like headsets and USB’s which can help working in functionality as well as a united style. These items should all match the phone.

Outfit-centric accessories

In fashion, an accessory is seen as add-ons to an outfit. It becomes “an essential part of an image or a look” [12], and this idea is available in several entries:

The backbone of a stylish man besides having certain essential, enduring chic clothing, they should also have the accessories that are able to match with the style...

In today’s society, cell phone becomes a necessity to most if not all men and women.

Excerpt 7: Text entry from the blog “A Man Fashion”

“A Man Fashion” is a male fashion blog which presents the latest fashion trend and cool fashion ideas by different authors. This text entry shows that the mobile phone is treated as one of the accessories that match the whole style of a man, which we will refer to as outfit-centric accessory. The mobile phone is secondary to the outfit and contributes to the look.



Figure 2 Picture from the blog in “Polyvore.com”

This aesthetical approach is even more clearly visible in the pictures in our corpus. We have found five pictures in the data set that display the phone in an outfit-centric perspective. For example, Figure 2 reveals a combined look, or style, for a modern man.

There are e.g. pants, jackets, glasses and a mobile phone. All of these items are chosen to form a complete style by combining essential objects in the color range from navy blue to grey. The phone plays the same role as other items to show the chic taste and combined “style”. In this sense, the mobile phone figures as an outfit-centric accessory.

Blurring of the two perspectives

These two sorts of accessories are very different since they put very different objects in the centre of attention. The device-centric approach focuses on the items that are attached to the phone, whereas the outfit-centric approach treats the phone itself as an accessory. Still we find examples where these ideas are blurred, as the next example will show.



“For a long time, we accessorized our cell phones with sparkly logo charms, Swarovski crystal face plates.... Well, designers are taking it one step up for us by designing the cell phones themselves. Now the cell phone doesn’t have dangling accessories; with a designer logo, it is an accessory.”

Excerpt 8: Picture and text entry from the blog “Stylelist”

“Stylelist” is a fashion blog with entries by many authors, covering a wide range of topics, from fashion to beauty. Here, we argue that both the text and the pictures blur those perspectives. In the picture, we can see how it draws on device-centric approach. The phone is in the center of the picture. The ear bud, the dangle, and the pouch are placed around it. The phone is pink, and so are the decorations. Thus, the items that can be attached to the phones are adapted to the handset. At the same time, the picture resembles the ways in which outfits are presented as an entire set (e.g. Figure.2). Thus, the aesthetics of the picture draws on the way styles are represented in images within fashion. Similarly, the text entry tells both stories. It presents both the add-ons to the phone and the phone as accessories.

Summing up, the term accessory is often referred to in online fashion media. It seems to be an important vehicle when approaching aesthetically interested consumers, but at the same time it brings with it a connotation that doesn’t

sit easy with what is traditionally taken as starting point in fashion.

Temporal Change (5)

Fashionable people must consider the appeal of an object in relation to time and change [18], such as in the following examples:

Forget Prada and Louis, this season's must have accessory for fashion month is black, silver or deep scarlet and fits in the palm of your hand.....Forget It-bags, this is the one accessory we're expecting to spot on the fashion editor's arms this season.

Excerpt 9: Text entry from the fashion web “Marie Claire”

The entry is from the British version of the magazine “Marie Claire”, arguing for an accessory that fits with the season. Borrowed from fashion discourse, “season” implies that this mobile phone is in and hot while some old ones are out. Fashion trend is traditionally released on the runway bi-annually, known as two seasons (spring/summer, autumn/winter) [18]. Here the mobile phone is placed within such a temporal pattern, implying that it is the latest design but it can also become out of date.

The mobile device is fashionable because it fits somewhat into the seasonal temporal pattern. Basically, both clothes and mobile devices become obsolete often much sooner than they break or fall apart. They become obsolete because clothes become out-of-style, and mobile devices are out away often because they are seen as functionally inferior to more recent devices. The fit in temporal change is therefore applicable, as in the previous entry, but again it is also ambiguous. The changing cycle is often slower when it comes to mobile phones, that when it comes to changing trends within fashion. Therefore, the fast paced fashion system has been identified as a potentially important stimulator to a vigorous mobile market by Pawlowski [24].

Interface Interaction (6)

There are a number of entries that refer to the practical handling of the phones functionality, i.e. traditional usability issues.

Texting has always been a real challenge for touch screen phones, especially for guys, since our fingers tend to be bigger. So I do encounter some problems typing, but overcame the inconvenience after getting used to.

Excerpt 10: Text entry from the blog “My MANy Bags”

The blogger describes how to input text on a mobile phone, and especially the problem of typing on a touch screen with big fingers.

Only a few entries account for experiences when discussing interface interaction. The reason for this limited amount in the corpus might be that screen and keyboard interaction is less public, whereas fashion is necessarily a “public” statement [30], i.e. people dress to be seen by others. As the interface is facing the user, the specific ways in which interaction can seldom, or hardly, be seen by other people around. Thus, when it comes to the bloggers’ comments on

interaction with phones, it rarely evokes the type of language that is used both for describing clothes and publicly visible parts of the mobile phone.

INPUT TO DESIGN

Designing for Outfit-centric Accessorizing

The concept of “accessory” is important in both fashion system and mobile design, but with different meanings. In fashion, an accessory is something that adds to the outfit, or he ensemble. It is often a watch, a bag, or piece of jewelry [12]. We termed this an outfit-centric accessory because it starts from the wearer of clothes. In this perspective, the mobile phone becomes an obvious accessory that should be an integral part of the outfit. Some entries witness of such a perspective. However, in the mobile phone industry, and also in the corpus, it is often the device that is the center of attention. Accessories then become things that are combined with the phone, such as phone cases, charms etc..

The co-existence of these perspectives might lead to the conclusion that mobile phones have already been appropriated as fashion accessories. The concept can be used as “boundary object” [32], between the two areas, which is sometimes useful even though they are incompatible, and the concept of designing for ambiguities has also been suggested within HCI [11]. But treating an object as part of an outfit has other implications than selecting objects to match the phone. For example, accessories in the outfit-centric approach need to fit with variations in clothing styles which have a much faster turnaround than how often a device is altered. Therefore we suggest that exploiting this difference in design could prove an interesting path to evoke interest among aesthetically interested consumers.

We see an interesting opportunity for future mobile design in the concept of outfit-centric accessories. We suggest that mobile design expand on the idea of outfit-centric accessories, which then would focus on matching the visual appearance of the digital device with the outfit of a person e.g. an application that matches the appearance of some visual elements of the phone to the garments. It should provide mechanisms, which increases the turnaround of the impression of the devices, and does it in such a way that it fits with a person’s ensemble.

Given the study we identify two further requirements on such an application, i.e. it should draw upon a visual aesthetics and in such a way that it is publicly available. First, we argue that the aesthetic considerations should focus on visual, since this would fit with the appeal of the users whose comments on the aesthetic of the phones were on visual expressions. Second, the visual features should be publicly available. This argument is grounded in the observation that the parts of the phones that attracted their aesthetic interest were often the back and the sides, and those parts are also visible for others. The visual interaction with the phones more concealed areas, such as the screen, was very seldom commented on in aesthetic terms and only discussed in terms of usability. They also explicitly com-

mented on how phones appear in public situations, such as runway shows.

This is also in line with fashion theory, since fashion is necessarily “public” and “secret fashion is a contradiction in terms” [30], and making visual features publicly available will be a critical problem if a user wants to make a fashionable statement with the phone.

DISCUSSION: REVISITING PRAGMATISM

The analysis is of relevance for our understanding of aesthetic theory and especially for the use of pragmatic aesthetic within HCI.

Online Media Put Fashion into Mobile Phone

Let us first discuss whether online media is an appropriate place to investigate aesthetic interaction and digital computing. The study shows that there is a link between the fashion system and mobile phones. First, the mobile industry invites people from fashion media to join the launch parties and test the new phones. Thus, mobile companies seem to treat fashionable people as an important group of consumers. The fact that they give phones to the bloggers, in specific, shows how they are valued as institutional gatekeepers between consumers and producers. Second, the vocabulary, or the language, by which online media discusses mobile phones, is rooted in the fashion world. For example it fits with Roland Barthes’ two ways of representing fashion i.e. a language of visual features and circumstanced appearance. This language is essential in making clothing and phones into fashionable items [23]. When it is utilized to represent mobile phones it adds to the possibility to adore also these digital objects and shows another link between fashion and the mobile world.

In this way, the writers’ opinions on the mobile phones are not simply users’ evaluations of the technology [4]. They are also locations where phones are made to be fashionable items. We argue that these social practices, e.g. fashion writings and gate-keeping, are important to understand aesthetic interaction and how to design attractive interaction. They are part of what John Dewey would refer to as the “environment”, in which aesthetics emerge [6]. To be more precise, the design of attractiveness is to be found in other places than in hardware and software design centers. This is similar to the way fashion is created in a system, which extends the places than where the clothes are manufactured. In this case, mobile phones become adorned in and through online media.

Sensual Interaction

The discussion on aesthetic interaction in HCI is very much about the role of our senses in the generation of experiences. Drawing on Dewey’s claim [6] that aesthetic experiences depends on a balance of all senses, many researchers has argued for extended physical or bodily interaction [21, 26, 28], as a way to complementing visual expressions. However, what we learn of users’ experiences in this area does not seem to fully match, or support, such an approach. The online fashion writers focus, with a few exceptions, on visual features when they comment on the aesthetics of the

mobile phones. They reveal and comment the stylish visual look. Thus, in many ways, the gatekeepers’ idea of aesthetics is a concern for its immediate visual appearance [13] than an interest in the appeal of physical and bodily interaction, which has come to be very dominating in HCI and pragmatist aestheticism [26]. Here, the aesthetics concerns the outlook of a device, not what is going on when the users input or output data.

Still, physical interaction does play an important role in the way our handling of the phone makes its visual appearance publicly available. Celebrities are mentioned when using their phones or posturing in social situations. The way that phones are presented as parts of “circumstances” [2], or the “environment” [6] makes the social and cultural discussions in aesthetic interaction visible, which somewhat underscores that argument within pragmatist aesthetics. It puts mobile phones into a context and cultural background which makes them glamorous and desirable as fashion items. But it also underscore that physical interaction is part of the aesthetical interaction. Physical interaction is referred to as a means to support visual appearance, and the way they comment on it is not on par with the way they discuss visual aesthetics. This is in line with Dalsgaard’s and Kofoed Hansen’s [5] discussion on the type of aesthetics within HCI, which is an “act of performing where she is a performer for others to observe.” Thus, what we see here is an aesthetical interaction that is not balanced, but is very much devoted to the adornment of our eyes.

It follows that the focus on aesthetics and physical interaction [6, 21, 11, 28] is in this case less applicable. There might of course be other areas, where it is more appropriate with such a design focus, but since the idea of balanced senses is a theoretical construct from start [6], we might be better off with taking a closer look at what’s going on also in ordinary people’s lives instead of pursuing the pragmatic approach even further.

Temporal Ambiguities

Dewey and the pragmatists argue that aesthetical experiences should be harmonious [6, 21], whereas the aesthetics of fashion is instead ambiguous and unstable according to Elizabeth Wilson [34]. What’s fashionable today will not be fashionable tomorrow. Therefore, fashionable people can never be in harmony. They are always somewhat uncertain and must look around and look for the next desirable object. Aligning the mechanisms of fashion desires, with the use of mobile phones, seems to add another object to the list of disordered considerations in fashion. Old phones become replaced by new phones for many reasons such as when they go out of style or lack new functionality. We have seen how common temporal changing patterns within clothing fashion, such as “seasonal change”, come to be evoked as a need to change phones. At the same time, it is important to recognize the temporal differences, in between how people change mobile phones and how they change their wardrobes. Furthermore, we have previously discussed the demand for changing accessories (such as phones) to match a particular style or outfit almost on a

daily basis. What we see here is ambiguities in matching these temporal patterns. We change our phones and clothes on a temporal base, and we look for ways to combine these two types of commodities into ensembles or outfits. But the temporal variations differ which makes the combinatory work difficult and adds to the inherent ambiguities in this particular aesthetic practice.

The Limits of the Pragmatism Approach to Aesthetic Interaction

Taken together, the way in which fashionable people relates to mobile digital devices provide interesting findings that makes explicit certain limitations in the pragmatist approach to aesthetic interaction.

On the one hand our study underscores the importance of Dewey's notion of the "environment" or the setting, in which aesthetic interaction occurs. In this case we have seen the role of the fashion system such as gatekeepers, fashion shows, celebrities etc. and how this influences what objects that become fashionable. We have also seen how the people studied describe and relate to mobile phones as adorable and aesthetic objects. However, which is important here, the aesthetic interaction investigated here shows signs of being both ambiguous [34] and visually dominated, rather than being balanced and including all sense. As we discussed in the previous section, it is both temporally ambiguous as well as conceptually ambiguous. The phone as fashion item is both the center and peripheral. Furthermore, it is a visually dominated aesthetic practice. Physical and bodily interaction is of relevance, but in almost all cases, only as a tool to support visual interaction, and not something that is pleasurable or adorned per se.

In all, our study leaves us in a rather awkward position. The gap in between the conceptualization of aesthetics in pragmatist theory, and the ways in which aesthetics is of importance in the fashion practice, calls for a revisit to the foundations of current discussion within HCI. Is pragmatist theory relevant when it argues for the importance of experiences as occurring in ordinary life, and emerging within a specific setting or "environment"? If so, what do we then make out of Dewey's list of very special aesthetical characteristics? To us it seems that much of the ordinary experiences of which he speaks, which for us should include the appeal of clothing, are not as complete and balanced as argued within this theory. It is then possible to rule out fashion as aesthetic experiences, and argue that pragmatism is still relevant? The other possibility is to see Dewey's philosophy as a source of inspiration to open for studies of ongoing and naturally occurring aesthetic practices in the world, but transcend his set of specific guidelines. Instead we could find more extensive and richer inspiration for design from such. Such an approach recognizes that the founder of pragmatism was a philosopher, who by tradition is not so keen of doing empirical work. This would then also explain why he argued against detailed studies of aesthetic practices. However, when it comes to design oriented research [37], the use of such philosophical approaches is less productive.

CONCLUSION

Establishing a relation between the fashion system, aesthetic interaction and mobile human computer interaction is novel. Perhaps, it is this quest into a new "territory" that explain how a somewhat limited data set can provide interesting findings, which both can be used to inspire future directions of mobile design and inform our general approach to aesthetic and experiential design.

The rather limited number of entries on mobile phones in online fashion media has given us a nagging feeling that there is something missing in mobile design that we need to account for, in order to provide more interesting mobile aesthetical experiences. We suggest that new mobile applications that draw on fashionable people's interest in dressed outfits, which are visually and publicly available, could increase their interest in mobile digital devices. We also argued that pragmatic aesthetics is less useful in HCI than what we previously might have believed. It does not seem to live up to its stated interest in aesthetics as practices and experiences occurring in ordinary lives, which then makes it less sensible for the various ways in which we adore, revel and experience objects, such as the mobile phone.

We hope that this study inspires extended empirical research in the area. Our own future work includes an interview series with color and material designers in the mobile and fashion industry, as well as design-oriented research on the concept of outfit-centric design.

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